Transport Nord-Ouest

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TRANSPORT NORD-OUEST

On-Board Computers and Driver Professionalism Lead to Cost Savings

A for-hire carrier that regularly hauls heavy loads over difficult terrain has significantly reduced its operating costs by emphasizing good driving practices. Company drivers and management alike have welcomed the use of on-board computers to monitor and assess driver performance.

About the company

Transport Nord-Ouest (TNO) provides trucking services to the mining and resource industries in northwestern Quebec and northeastern Ontario. The company operates a fleet of more than 50 Class 8 tractors from terminals in Val d'Or, Rouyn-Noranda and Matagami in Quebec, and Sudbury and Timmins in Ontario. Most of these vehicles are used to haul ore and semi-processed minerals from mines to processing facilities, with each vehicle travelling an average of 300 000 kilometres per year.

TNO's trucks usually haul heavy loads over distances that vary from 20 to 600 kilometres, on both paved highways and loose-surface roads. This kind of service is demanding on a truck, and good driving practices can minimize its impact on operating costs. The company depends on the skills and conscientiousness of its drivers to maintain a safe and efficient operation.

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Company management, beginning with Vice-President of Operations Gerry Breetvelt, places great emphasis on ensuring that TNO's vehicles are operated at acceptable speeds and that drivers have the means to monitor and improve their performance. In addition to the safety considerations, TNO is conscious of the direct relationship between high speeds and high vehicle maintenance and fuel costs.

Switching from tachographs to on-board computers

Until recently, all TNO trucks were monitored with tachographs – dashboard instruments that record a vehicle's speed and engine r.p.m. on a card. Each day, the drivers submitted these cards to their supervisor, who checked the vehicle's top speed.

In early 1995, the company began installing on-board computers to more effectively and efficiently monitor its vehicles. According to Mr. Breetvelt, the computers offer the following key advantages:

- They provide more information than tachographs, in a more usable format. Instead of studying a graph to determine top speed, drivers and managers now get accurate and easy-to-read information on vehicle speed, idling, braking, acceleration, fuel consumption and other key operating considerations.

- They make it easier to keep drivers informed about their performance, since the above information is provided to the drivers even before it goes to the supervisor.

How the system works

Using an on-board computer screen, the new monitoring system provides immediate feedback to drivers while they are in their cabs. For example, if a vehicle is being driven faster than the maximum speed allowed by the company, the computer can be programmed to alert the driver with a message on the screen or a sound signal.

Throughout the trip, a diskette stores information on the vehicle's operations. On returning to the terminal, drivers insert the diskette into a download station and get a full report on their driving performance and fuel economy.

In terms of cost, the on-board computers are only slightly more expensive than the less sophisticated tachographs. The company had been paying about $1,800 per unit to purchase tachographs, and the computers cost only a few hundred dollars more per unit, including the download stations and software required in each of the company's terminals.

Excellent driver acceptance and performance improvements

On a daily basis, the company's supervisors review the information recorded by the system so they can bring serious infractions to the driver's attention. However, they have deliberately avoided being too aggressive about enforcing performance standards. "We don't use this for discipline," explains Mr. Breetvelt. "[The system] lets the drivers police themselves. They have the results right there on the table in front of them."

In other words, TNO is putting the onus on its drivers, as professionals, to drive safely and efficiently and to use the on-board computers to improve their performance. Drivers have responded by accepting the new technology with open arms and achieving some impressive fuel-efficiency gains.

In the first six months of 1996, TNO's fuel expenses declined by 14 per cent compared with the same period in the previous year – a savings of $162,000. This decrease occurred despite slightly higher fuel

An optional interface has been installed between the on-board computer and the engine electronics of TNO's newer vehicles to enable the system to record fuel consumption while the vehicle is being driven. For TNO drivers, this has meant more consistent and accurate recording of fuel consumption, which is becoming an increasingly important measure of performance.

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prices in 1996. With the company's business volume and vehicle use being approximately the same during the two periods, Mr. Breetvelt credits improved driving practices for most of the cost savings.

A solid relationship between management and drivers

Transport Nord-Ouest's installation of on-board computers has yielded substantial benefits in terms of reduced fuel and maintenance costs and improved safety. This success is fostered by the excellent relationship the company has with its employees. TNO is a company that people like to work for, and drivers and supervisors alike have applied the tools given to them to improve the operation of the fleet.

For more information on fleet energy-saving opportunities, please write to

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